DOCUMENT RESUME

ED 237 561 TM 830 825

AUTHOR MacDonald, Judith B.
TITLE Group Discussions: Settings for Educational Analysis and Evaluation.
PUB DATE Nov 82
NOTE 19p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Classroom Observation Techniques; Discourse Analysis; *Discussion (Teaching Technique); Elementary Secondary Education; *Evaluation Methods; Grade 6; Grade 7; *Group Discussion; Social Studies; *Student Evaluation; Tape Recordings; *Teacher Effectiveness

ABSTRACT

As standardized tests receive more critical scrutiny and fall into more disfavor, members of the educational community search for alternative measures of assessing schooling and learning. If one of the goals of education in a democracy is to encourage students to express, develop and share ideas, the discussion setting is a logical arena in which to investigate and evaluate learning and teaching. Although the data generated from examining teacher-student discourse may fit less neatly into traditional patterns of evaluation, it is suggested in this paper that such discourse can provide pertinent information about teaching styles and student learning which cannot be gleaned from standardized tests. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED237561

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Group Discussions: Settings for Educational Analysis and Evaluation

by

Judith B. MacDonald
Assistant Professor of Education
Montclair State College

November, 1982

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. B. MacDonald

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TM 830 825

Group Discussions: Settings for Educational Analysis and Evaluation

by

Judith B. MacDonald

Assistant Professor of Education

Montclair State College

Upper Montclair, N.J. 07043

Mailing Address: 329 Engle Street
Tenafly, N.J. 07670

Home telephone: 201-871-4319

Work telephone: 201-893-7301

Abstract

As standardized tests receive more critical scrutiny and fall into more disfavor, members of the educational community search for alternative measures of assessing schooling and learning. If one of the goals of education in a democracy is to encourage students to express, develop and share ideas, the discussion setting is a logical arena in which to investigate and evaluate learning and teaching. Although the data generated from examining teacher-student discourse may fit less neatly into traditional patterns of evaluation, it is suggested in this paper that such discourse can provide pertinent information about teaching styles and student learning which cannot be gleaned from standardized tests.

As standardized tests receive more critical scrutiny and fall into more disfavor, members of the educational community search for alternative measures of assessing schooling and learning. If one of the goals of education in a democracy is to encourage students to express, develop and share ideas, the discussion setting is a logical arena in which to investigate and evaluate learning and teaching. Although the data generated from examining teacher-student discourse may fit less neatly into traditional patterns of evaluation, it is suggested in this paper that such discourse can provide pertinent information about teaching and student learning which cannot be gleaned from standardized tests.

The notion that the expression, development and sharing of ideas are central to learning is not new. Group discussions were considered an essential part of the classroom experience as early as 1896 when John Dewey founded the Laboratory School at the University of Chicago. Similarly, Vygotsky's studies in the 1920's focused on the pivotal role of language in the development of thinking. Like Dewey, Vygotsky held that verbal interactions with adults was a powerful factor in the development of children's concepts.

More recent studies of classroom discourse (Taba, 1962; Bellack, 1966; Moffett, 1968; Barnes, 1976; Cazden and Mehan, 1976) have examined the verbal interactions of students and teachers. Hoetker and Ahlbrand (1969) reviewed the results of observational studies of verbal behavior over the past fifty years. The communication pattern they most commonly found was the "recitation" or teacher question and pupil response. They

raised the question, "What is it about the recitation that makes it so successful in the evolutionary struggle with other more highly recommended methods? That is, what survival needs of teachers are met uniquely by the recitation?" (p. 163). In the study described herewith discussions were examined which were not principally "recitations."

Method

The subjects of this study were one class of sixth/seventh grade students and their teacher. The class was in the Laboratory School of the Bank Street College of Education in New York City. The school constitutes one component of the College which was founded in 1919 "for the improvement of all the nation's children," and functions as a laboratory for the demonstration of the philosophy of the College.

Both the principal of the school and teacher of the class graduated from the College and their educational philosophies were affected by and reflect its goals. The teacher had taught this group of students for two years, and most of the students had attended the school since kindergarten and thus were exposed to its philosophy and practices for about six years.

To gain a more thorough understanding of the educational views of the principal and teacher, each was interviewed three times for one hour. The tape recorded, transcribed interviews provided information about how each felt about discussions, teaching and schooling. One purpose of the teacher interviews was to match her stated goals in discussions with her verbal behavior as evidenced through an analysis of the discourse.

As indicated, this class was selected for study because verbal interactions in discussions seemed to consist of more than "recitations." In

addition, daily social studies lessons were an integral part of the class program, a phenomenon not usually found in other classrooms this investigator observed. Visits to the class were made over a $3\frac{1}{2}$ month period. While the purpose of the study was to discern and analyze communication patterns in social studies discussions, it was informative to be present in the class when other activities and interactions occurred. Observations in various settings increased the investigator's understanding of the teacher's approach to children and curriculum. Similarly, other classrooms in the school were visited to gather an impression of the classroom climate in different rooms and served to familiarize the researcher with the general school setting.

At the time the class was observed, the social studies curriculum concerned American colonial history. The content of the discussions focused on slavery in colonial America and the development of an original play about witchcraft in Salem, Massachusetts in the 1600's.

The discussions were approximately thirty minutes long and were recorded on audiotape and transcribed by the investigator. Eighteen discussions were tape recorded, transcribed and analyzed and twelve were used in the study.

System of Analysis

The data were analyzed to describe the sequence and content of the discourse of the teacher and students. An adaptation of the Bellack system (1966) was developed, using both a quantitative and interpretive approach to the findings. The analysis system was based on the Bellack system with respect to its concept of pedagogical moves and teaching

cycles, but categories of meaning were derived from a study of the data. The Bellack system is based upon Wittgenstein's approach to language in which discourse is viewed as a kind of game in which players make verbal moves.

In the Bellack scheme, there are four types of pedagogical moves, structuring, soliciting, responding and reacting, and they are classified according to their function in discourse. Structuring and soliciting are initiatory moves; structuring moves set the context for subsequent verbal behavior and soliciting moves are intended to elicit a response. Responding and reacting are reflexive moves; responding moves occur in relation to soliciting moves, while reacting moves are occasioned by other moves and are not directly elicited. Reactions represent comments that the speaker makes unsolicitedly. In previous studies which have used the Bellack system it has been found that structuring, soliciting and reacting are moves usually made by the teacher while responding is a common student move.

Categories of Meaning

Comments were identified not only as a type of move but also in terms of the meaning of their content. Three categories of meaning developed from examining the content of the discussions: substantive, functional and procedural. Substantive categories of meanings refer to the cognitive and affective processes expressed in the discourse and include the following: to explain, speculate, infer, opine, inform. Functional categories of meanings concern the course or direction of the discussions. They narrow or broaden the focus of the discourse. Moves

in these categories are usually made by the teacher. Functional categories are: to highlight, recapitulate, clarify, amplify, restate, repeat, hold. Categories of procedural meaning relate to classroom organization and management and they, too, were principally in the teacher's domain. Procedural categories are: to give directions, manage, suggest, give turn taking permission. (See Figure 1.)

Categories of meaning	Pedagogical Moves									
	SOL		STR		RES		REA		TOTAL	
	T	S	T	S	T	S	T	S	T	S
Substantive										
Explain										
Speculate										
Infer										
Opine										
Inform										
Functional										
Clarify										
Amplify										
Highlight										
Recapitulate										
Restate										
Repeat										
Hold										
Procedural										
Direct										
Manage										
Turn taking permission										
Not Codable										
Total										

Figure 1. Teacher-student pedagogical moves and categories of meaning.

Discussions were also analyzed according to Bellack's concept of teaching cycles. Cycles represent patterns of discourse and provide a way of describing pedagogical moves in relation to each other. Cycles begin with an initiating move such as structuring or soliciting and end with the move which precedes the next initiating move. Through the use of teaching cycles it is possible, for example, to determine the extent of student participation in response to a teacher's question.

The following excerpt from a protocol illustrates the coding procedure and interpretation of the coded information:

> Teacher (Move #1): If you had read only the first chapter of Amos' Fortune, do you think you could infer something about the effect of this on Africa? We all have ideas about how it affected our history, but do you have any idea of what effect it would have on Africa?
>
> Pupil (Move #2): They didn't know what to do. They never planned for this. They panicked.
>
> Pupil (Move #3: I wouldn't say they panicked.
>
> Code
>
> Move #1 T/SOL/INF
> Move #2 P/RES/INF
> Move #3 P/REA/OPR
>
> Interpretation
>
> The teacher solicits an inference about the effect of the slave trade on the Africans by asking two questions which invite pupils to infer (Move #1). A pupil responds with an inference (Move #2). A second pupil reacts and gives his opinion to the first pupil's response. This segment of discourse is an example of a teacher-initiated cycle 18 (SOL RES REA).

Results

A comparison of teacher-student talk revealed that students made more pedagogical moves and thus contributed more often to the discussions than the teacher. The teacher was responsible for 48 percent of the moves and the students 52 percent. This finding is notable because it represents a departure from reported patterns of classroom discourse. Research has shown that teachers talk more frequently than students by a ratio of 3:2 (Flanders, 1970).

Pedagogical Roles of Teacher and Students

The types of pedagogical moves made in discussion provide information about the roles played in discourse. For example, the structuring move which launches or begins a topic is usually a teacher's move. In this study the teacher was responsible for all structuring moves in the discussions about slavery and for 87 percent of them in the play development discussions. Solicitations, too, are usually in the teacher's domain. This teacher asked 83 percent of the questions in the slavery discussions and 67 percent of them in the play development discussions. While she had the main role in soliciting talk, it should be noted that in the play discussions the students were responsible for asking one third of the questions, which is a greater number than has previously been reported in studies of student questioning behavior (Susskind, 1969). Thus while the teacher was the principal solicitor, she did not exclusively control that role.

The students had the main responsibility for responding, making 90 percent and 75 percent of the responses in the slavery and play discussions,

respectively. Nevertheless responses constituted only about 43 percent of the students' discourse in each setting. Thus while it is possible to have the major responsibility for a pedagogical move when noting student-teacher discourse, it does not necessarily mean that this move represents a participant's primary mode of expression.

The move most worthy of note was the reaction. It may be recalled that reactions are not directly elicited and are not conventionally necessary in discourse as, for example, responses are. In previous studies which used the Bellack system (Fey, 1970; Lundgren, 1972; Neujahr, 1976) reactions were made chiefly by teachers. In this study, however, the teacher and students made about the same number of reacting moves. In fact, in both discussion settings the students made slightly more of these moves (see Table 1). Thus while some roles were distinctly in either the teacher's or students' domain, such as structuring or soliciting which were teacher roles, or responding, which was the student's role, reacting was in the domain of both. This finding indicates that although there were differences in how the teacher and students participated there were similarities in their roles as well. The roughly equal number of student-teacher reacting moves suggests a shared responsibility for participating in the discussions. However, teacher reactions are somewhat different from student reactions in that the former are more conventional in classroom discourse. That is, it is not uncommon for a teacher to comment on a student's response to a question whereas it is less likely that students would comment on the remarks of a teacher or of other students.

That students made a preponderance of reacting moves indicates that their participation was more self-initiated than teacher solicited or

Table 1

Pedagogical Roles of Teacher and Pupils in Slavery and Play Development Discussions

	Slavery discussions						Play development discussions					
	Total		Teacher		Pupils		Total		Teacher		Pupils	
Pedagogical move	f	%	f	%	f	%	f	%	f	%	f	%
STR (structuring)	17	100	17	100	-	-	23	100	20	87	3	13
SOL (soliciting)	127	100	106	83	21	17	87	100	58	67	29	33
RES (responding)	142	100	14	10	128	90	87	100	22	25	65	75
REA (reacting)	304	100	145	48	159	52	89	100	40	45	49	55

active rather than obligatory and passive. The fact that the teacher's reactions exceeded her solicitations represents a departure from the findings of other studies using the Bellack system and suggests that the teacher moved the discussions along by reacting to students rather than by soliciting information from them. She seems to have acted as a coparticipant as well as leader in the discussions.

Bellack's "teaching cycle" provides a framework in which to observe pedagogical moves in relation to each other. As previously described, a cycle begins with an initiating move, i.e., structuring or soliciting and ends with the move which precedes the next initiating move. The length and composition of a teaching cycle offer another perspective from which to view classroom discourse. That is, if a discussion consists mainly of short cycles such as a teacher solicitation and student response, it can be inferred that the teacher controlled the discourse by asking a succession of questions.

In this study three cycle types accounted for most of the discourse. Short cycles of solicitation-response and solicitation-response-reaction represented 46 percent of the teaching cycles. Longer cycles of five moves or more constituted 54 percent of the discourse. The combination of short and long cycles suggests that the discussions consisted of both focused and exploratory discourse. Since the teacher was the principal initiator of cycles, she was responsible for allowing them to continue to the extent that they did. These long cycles provide information about her teaching style in that she permitted a flow of talk before making her next initiating move.

Types of Meaning Communicated

Without noting the content of the discourse it could be asserted that long cycles represent a sharing of banalities rather than "a collaborative building on each other's thoughts" (Teacher's comment). Noting the substantive, functional and procedural categories of meaning in which moves are made provides information about the content of the moves.

In the discussions on the topic of slavery, the main substantive categories in which students made comments were "explain" and "inform." When they asked questions as they did about 10 percent of the time, they were questions of clarification about the topic under discussion rather than questions about classroom procedure. In previous studies (Bellack, 1966; Hoetker, 1969) student questions concerned matters of classroom procedure rather than substantive issues. The teacher's solicitations, like the students', were substantive rather than procedural.

Categories of functional meaning were developed to identify the teacher's verbal behavior. A common practice of the teacher was to recapitulate or restate what the students said. This behavior served to invite continued student participation as indicated by subsequent student reacting moves.

Procedural moves are concerned with classroom management. Only 7 percent of the teacher's comments were procedural and half of these were in the category "turn taking permission" in which the teacher calls upon a volunteering student. Analysis of the procedural moves indicated that the teacher spent little discussion time on management issues.

There are patterns in the discussions which seem worthy of note. The fact that the teacher did not dominate the discourse but rather made

about the same number of moves as the students suggests that the participants collaborated in the development of the discussions. That reacting moves were the favored move of both the teacher and students indicates a similarity of participation in a setting where the teacher has traditionally asked the questions and the students answered them.

The patterns of participation in the discussions may be related to the setting of the study. It took place in an educational environment in which the articulation of ideas is valued as revealed through interviews with the principal and teacher and manifested in the philosophy of the College. Nevertheless it is not always the case that classroom practices reflect educational theory, as they seem to in this study.

Discussion Analysis: A Staff Development and Evaluative Tool

The system of analysis can be adapted for staff development and evaluation purposes. As a staff development tool it provides the teacher with information about when discussion participants speak and what they say. It is difficult for a teacher simultaneously to lead a discussion and be reflective about her behavior. With objective data about the verbal interactions in discussions, the teacher could reflect on her behavior and that of her students. This objective information could be provided by tape recording discussions and listening to discourse in light of category distinctions. Categories could be collapsed to facilitate learning the system and increase the teacher's awareness of discussion behavior. Ideally, the teacher's goals should match the communication patterns in her classroom. For example, the Bank Street teacher said of her goals:

> I ask questions to invite speculation. The hard part is not formulating the questions but listening to the children's responses and being able to see the value of them . . . . It's not passing judgment on a child's response. It is much more responding to his thinking.

If this teacher had an opportunity to analyze discussions, she would have a clearer notion of whether she was, in fact, "responding to a child's thinking." She could make this assessment by noting her verbal behavior in relation to her students'.

As an evaluative tool, the analysis system provides data about communication patterns and discussion behavior. Does the teacher do most of the talking, ask rapid-fire questions or make reacting statements which invite participation? Which substantive categories are used most? Is discourse confined to "informing" or do "explaining" and "speculating" occur? How much of the discussion is devoted to procedural categories involving classroom management?

If the expression, development and sharing of ideas is valued in a school setting, a first step in achieving this goal is to assess the extent to which it exists. The data generated from the analysis system can be used by teachers and supervisors to note students' verbal behavior and to consider ways to achieve a more optimal balance in student-teacher discourse.

References

Barnes, D. From communication to curriculum. Harmondsworth, England: Penguin, 1976.

Bellack, A., Kliebard, H., Hyman, R., & Smith, F. The language of the classroom. New York: Teachers College Press, 1966.

Bruner, J., Goodnow, J., & Austin, G. A study of thinking. New York: John Wiley & Sons, 1956.

Cazden, C., John, V., & Hymes, D. (Eds.). Functions of language in the classroom. New York: Teachers College Press, 1972.

Dewey, J. The child and the curriculum. Chicago: University of Chicago Press, 1902.

Fey, J. Patterns of verbal communications in mathematics classes. New York: Teachers College Press, 1970.

Flanders, N. Analyzing teaching behavior. Reading, Massachusetts: Addison-Wesley, 1970.

Lundgren, U. P. Frame factors and the teaching process. Stockholm: Almqvust & Wiksell, 1972.

MacDonald, J. B. Analysis of children's language in discussions (Project "Follow Through"). Unpublished manuscript, Bank Street College of Education, 1975.

MacDonald, J. B. Patterns of communication in social studies discussions in a sixth/seventh grade classroom. Unpublished doctoral dissertation, Teachers College, Columbia University, 1981.

Mayhew, K. C., & Edwards, A. C. The Dewey school. New York: Atherton Press, 1936.

Mehan, H., Cazden, C., & Coles, L. Social organization of classroom lessons. San Diego: Center for Human Information Processing University of California, 1976.

Moffett, J. A student-centered language arts curriculum grades K-13: A handbook for teachers. Boston: Houghton Mifflin, 1968.

Neujahr, J. L. The individualized instruction game. New York: Teachers College Press, 1976.

Piaget, J. The language and thought of the child. London: Routledge & Kegan Paul, 1926.

Susskind, E. Questioning and curiosity in the elementary school classroom. Unpublished doctoral dissertation, Yale University, 1969.

Taba, H. Curriculum development: Theory and practice. New York: Harcourt Brace, Javanovich, 1962.

Vygotsky, L. S. Thought and language. Cambridge: M.I.T. Press, 1962.

Wittgenstein, L. Philosophical investigations. Oxford: Basil Blackwell, 1958.